

Jamie Lay

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Objective

While working directly with clients in all phases of the hardware/software development life cycle, I necessarily developed a wide variety of professional skills. While no one person can know everything, it is the ability to adapt and learn, to apply new tools and techniques to resolve specific problems and to continue to grow professionally and interpersonally that defines sustainability in this or any field. As a self-motivated individual whose consulting career has spanned more than two decades, I am looking forward to applying the skills I have learned to increase the profitability of my employer while working with other talented specialists as I continue my formal and self-directed education.

Experience

Macintosh Programming Consultant

1986 – Present

Developed commercial and in-house software titles, drivers and libraries using a variety of technologies.

Windows Programming Consultant

1998 – Present

Produced commercial applications and driver-level products using appropriate tools and methods.

Linux, Hardware, Firmware Consultant

2002 – Present

Designed and built microprocessor-based devices and firmware for consumer and retail applications.

Education & Certifications

BS in Computer Science

2015

University of North Georgia, 3.6 GPA

Electronic Engineering Technology

2012

Lanier Technical College, 3.7 GPA

Certified Ethical Hacker (CEH v6)

2010

Certified Penetration Tester (CPT)

2010

Internationally certified through EC-Council and IACRB in methods of evaluating and attacking computer systems to identify and exploit weaknesses useable to gain root-level access to the target system.

USAF

1979

Airborne Mandarin Chinese Interpreter. Top Secret SCI Clearance (Inactive).

Skills

Languages: C, C++, Bash Shell, PHP, LAMP, JSON, REST, Ladder Logic, Java, JavaScript
Databases: Oracle, DB2, SQLite, MySQL, dbase
Embedded: Firmware, Bare Metal, PIC/Microchip, Arduino/Atmel, ARM, PLC, HMI
Platforms: Desktop, Mobile, Handhelds, PLCs. Kiosks, System libraries/DLLs, Drivers, Utilities, Hardware
Protocols: TCP/IP, RS232 Serial, I2C, UART, GPS, Wireless, A/D, D/A
Tools: Buildroot, Make, Git, Jira, Bit Bucket, Confluence
OS: Linux, Macintosh, Windows, Hardware,

US Patents and Patent Applications

"Secure Digital Document Distribution with Real-Time Sender Control of Recipient Document Content Access Rights"

Patent Application No: 13/445,846 (2012)

"Method and Device for the Prevention of Piracy, Copying and Unauthorized Execution of Computer-readable Media"

Patent Applied For: US 2008/0289046

"Method for removing labels adhered to a diskette and de-labeling means for doing so."

U.S. Patent 5,378,300 (1995)

G. S. Huvard and A. D. Lobo, et. al.

Work History

- 12/17 - **Scientific Games**
Senior Software Engineer. **(Linux, C++, PHP, MySQL)**
Support and enhance international lottery backend system. Process EFT, EBP and Credit Card transactions using a variety of national and international processors. Augment administrative system for lottery players including full suite of payment actions.
- 12/20 - 10/22 **ADT**
Senior Software Firmware Engineer. **(Linux, C++, 32-bit Arm® Cortex®-A5)**
Developed Linux OS application for Microchip SAMA5D chipset. Custom OS using Buildroot. Shell scripting to auto-update firmware over Wi-Fi.
- 9/12 - 12/17 **54 Bells, Inc.**
Principal Engineer. Database and Web Developer, Hardware Designer, Firmware Developer
(Mac & Win UI, Linux, Apache, PHP, MYSQL, Firmware, PIC, Arduino, RS232, I2C)
Designed and implemented a back-end database portal in support of business operations. Created custom GPS tracking and other hardware devices as required.
- 7/06 – 12/17 **Advent Ignitions**
Hardware and Software Consultant: **(C/C++, MPLAB, Embedded Firmware, PIC, Arduino, RS232)**
Created desktop UI app, firmware and in-circuit serial programmer for customer-programmable racing ignition for sport watercraft and snowmobiles.

- 7/15 – 4/17 **Equifax**
Java team programmer: (**Java, Smart GWT, Oracle, Eclipse**)
Facilitated development of mission critical user portal for commercial services. Worked with offshore team and mentored interns in career development and coding best practices.
- 12/10 – 4/11 **AT&T**
Software Engineer: (**Linux, C/C++, DSD**)
Worked with the Automated Testing Framework team to improve tools and processes used for the validation of proprietary language software written for the iPad and iPhone accounts.
- 6/08 – 10/12 **SafedoX.com**
Principal Engineer. Hardware and Software Architect (**Mac & Win UI, C/C++, PHP, MySQL, Xojo**)
Designed and created a B2B digital rights management system for enterprise and small business.

Companies using my commercial software

3M Company	Medical College of Wisconsin
American College Testing Program	Medical Education Systems
Anritsu - Corp. Laboratory, Japan	Micracor Company
Apple Computer	Milton Hershey Medical Center
Arco Oil & Gas Company	MIT Lincoln Laboratory
Argonne National Laboratory	NASA Ames Research
AT&T Bell Laboratories	National Cancer Institute
BellSouth Advertising & Publishing	National Institutes of Health
Ben-Gurion University, Israel	National Renewable Energy Lab
Berkeley Systems	Navy Research Lab
BFGoodrich R &D	North Carolina State University
Bonneville Power Administration	Northeastern University
Boston University	Northern Telecom
Bristol-Myers Squibb	NTT Opto-Electronics, Japan
Brock University, Canada	Ohio State University
California Institute of Technology	Purdue University
Cardiac Arrhythmia Consultants	Sandia National Laboratory
Catalyst	Santos, Ltd., Australia
Chevron U.S.	Scripps Institute of Oceanography
Communications Research Center, Canada	Scripps Research Institute
Corporate & Education Software	Texaco
Cray Research, Inc.	The Institute of Physics, England
Dugan/Farley Communications	Union Carbide Chemicals &Plastics
Duke University	University of Calgary, Canada
EG&G Idaho	Univ. California, Berkeley
E.I. du Pont de Nemours & Co.	Univ. California, Los Angeles
Eli Lilly Research	University of Iowa
FUNDP Computing Centre, Belgium	University of Maryland
Goddard Space Flight Center	University of Notre Dame
Hughes Aircraft	University of Tennessee
Illinois State Geological Survey	U.S. Air Force Materials Laboratory
Indiana University	U.S. Army
John Hopkins University	U.S. Food & Drug Administration
Lawrence Berkeley Laboratory	U.S. Department of Energy
Marine Biological Laboratory	Waibel Technical Computing
Massachusetts Inst. of Technology	Westinghouse Corporation
McMaster University	Woods Hole Oceanographic Institute